Resilience and Adaptation to Climate Risks Workshop: Stennis Space Center Area

October 16-18, 2012
Roy Estess Administration Building
Logtown Conference Room
Welcome

Mark Glorioso, Director
Center Operations Directorate
Stennis Space Center
Climate

Olga Dominguez
Assistant Administrator
Office of Strategic Infrastructure
NASA Headquarters
The Earth is a Closed Loop System
with many sub-systems; there is no “away”
Many sub-systems — atmosphere, land, oceans, snow, urban landscape, etc — affect daily weather and longer-term climate. That is why predicting weather and modeling climate change is very complicated — all of these systems have many inputs and outputs.
Why are we here

**NASA’s assets** are subject to impacts from climate variability and a changing climate; the institutional community must manage the risks these impacts pose.

Fortunately, **NASA scientists** have information and data about climate and weather that can help us plan.
Over 2/3rds of all NASA’s constructed real property value is within 16 feet of sea level ($\approx$20B) and are already feeling impacts....
For NASA’s institution to succeed in support of NASA missions, we need a slight shift from what we are doing now..... Incorporate the data and information that NASA Earth Scientists develop and apply it to our institutional risks.

*Climate risk adaptation is the process of considering climate impacts and adjusting our designs and management practices (within our existing NASA processes) to mitigate mission risk.*
Focus of our Workshop

Institutional Stewards + Climate Scientists = Our Adaptation Workshop

Any questions?
Welcome

Cynthia Rosenzweig, Ph.D.
Leader of the Climate Impacts Research Group at NASA’s Goddard Institute for Space Studies
and
Co-Chair New York City Panel on Climate Change
Applied Science & Technology Project Office

Making a difference in the Gulf, across the country, and around the world.

Duane Armstrong, Chief
October 16, 2012

http://science.ssc.nasa.gov
SCIENCE@SSC

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Provides National Exposure for NASA Science
Enables Students to Participate In NASA Research
Develops Environmental Monitoring Technologies
Land Use Land Cover

CONUS monitoring of forests and rangelands to rapidly identify damage and threats.

Pests and invasive species.

ForWarn - http://forwarn.forestthreats.org

Drought monitoring

Nowcasting *Vibrio parahaemolyticus* distribution and concentration in coastal waters. Water quality variations help states identify the most effective monitoring and sampling strategies.

Persistent flooding of coastal marshes triggers ecosystem changes and habitat loss. Barrier island vegetation and geomorphology affect the sustainability of these important coastal buffers.

Agricultural best management practices have...
Disasters

Deepwater Horizon oil spill

Forest fires

Tornadoes in Tuscaloosa

Flooding along the Mississippi River
Enable public participation in NASA scientific research